

QUESTION 1

SINGLE_MCQ

Correct

this is the question please check

STUDENT ANSWER
correct option

CORRECT ANSWER
correct option

Marks: 4/4

EXPLANATION
Correct!

QUESTION 2

SINGLE_MCQ

Correct

asdad asad

STUDENT ANSWER
correct

CORRECT ANSWER
correct

Marks: 4/4

EXPLANATION
Correct!

QUESTION 3

SINGLE_MCQ

Correct

THIS IS THE THIRD QUESTION FROM THE PHYSICS

STUDENT ANSWER
CORRECT OPTION

CORRECT ANSWER
CORRECT OPTION

Marks: 4/4

EXPLANATION
Correct!

QUESTION 4

SINGLE_MCQ

Incorrect

A heating coil with a resistance of 10Ω ; is connected to a 120 V power supply. If the coil is immersed in 500 g of water, what is the approximate temperature rise of the water after 2 minutes, assuming all electrical energy is converted to heat in the water? (Specific heat capacity of water = $4200 \text{ J/kg}^\circ\text{C}$)

STUDENT ANSWER
 82.3°C

CORRECT ANSWER
 164.6°C

Marks: 0/4

EXPLANATION
Incorrect. Correct answer: 164.6°C

QUESTION 5

MULTIPLE_MCQ

Correct

A satellite maintains a stable circular orbit around the Earth. Which of the following statements accurately describe its motion or the forces acting upon it?

STUDENT ANSWER
The gravitational force exerted by Earth does no work on the satellite.[The satellite's speed is constant.]Its kinetic energy remains constant.

CORRECT ANSWER
The gravitational force exerted by Earth does no work on the satellite.[The satellite's speed is constant.]Its kinetic energy remains constant.

Marks: 4/4

EXPLANATION
Correct!

QUESTION 6

MULTIPLE_MCQ

Correct

A ball is thrown vertically upwards from the ground. Ignoring air resistance, which of the following statements are correct regarding the ball's motion?

STUDENT ANSWER

CORRECT ANSWER

STUDENT ANSWER

The kinetic energy of the ball continuously decreases until it reaches its maximum height.|The gravitational potential energy of the ball continuously increases until it reaches its maximum height.

CORRECT ANSWER

The kinetic energy of the ball continuously decreases until it reaches its maximum height.|The gravitational potential energy of the ball continuously increases until it reaches its maximum height.

Marks: 4/4

EXPLANATION

Correct!

QUESTION 7

MULTIPLE_MCQ

Correct

A small ball is thrown vertically upwards from the ground with an initial velocity. Assuming air resistance is negligible, which of the following statements accurately describe the ball's motion and energy during its flight?

STUDENT ANSWER

The acceleration of the ball remains constant throughout its entire flight.|The kinetic energy of the ball is zero at the highest point of its trajectory.|The total mechanical energy of the ball remains constant.

CORRECT ANSWER

The acceleration of the ball remains constant throughout its entire flight.|The kinetic energy of the ball is zero at the highest point of its trajectory.|The total mechanical energy of the ball remains constant.

Marks: 4/4

EXPLANATION

Correct!

QUESTION 8

MULTIPLE_MCQ

Correct

Consider a simple pendulum swinging freely in a vacuum. Which of the following statements are true about its motion?

STUDENT ANSWER

Its speed is maximum at the lowest point of its swing.|Its acceleration is maximum at the extreme ends (highest points) of its swing.|The total mechanical energy of the pendulum remains constant.|The restoring force acting on the bob is always directed towards the equilibrium position.

CORRECT ANSWER

Its speed is maximum at the lowest point of its swing.|Its acceleration is maximum at the extreme ends (highest points) of its swing.|The total mechanical energy of the pendulum remains constant.|The restoring force acting on the bob is always directed towards the equilibrium position.

Marks: 4/4

EXPLANATION

Correct!